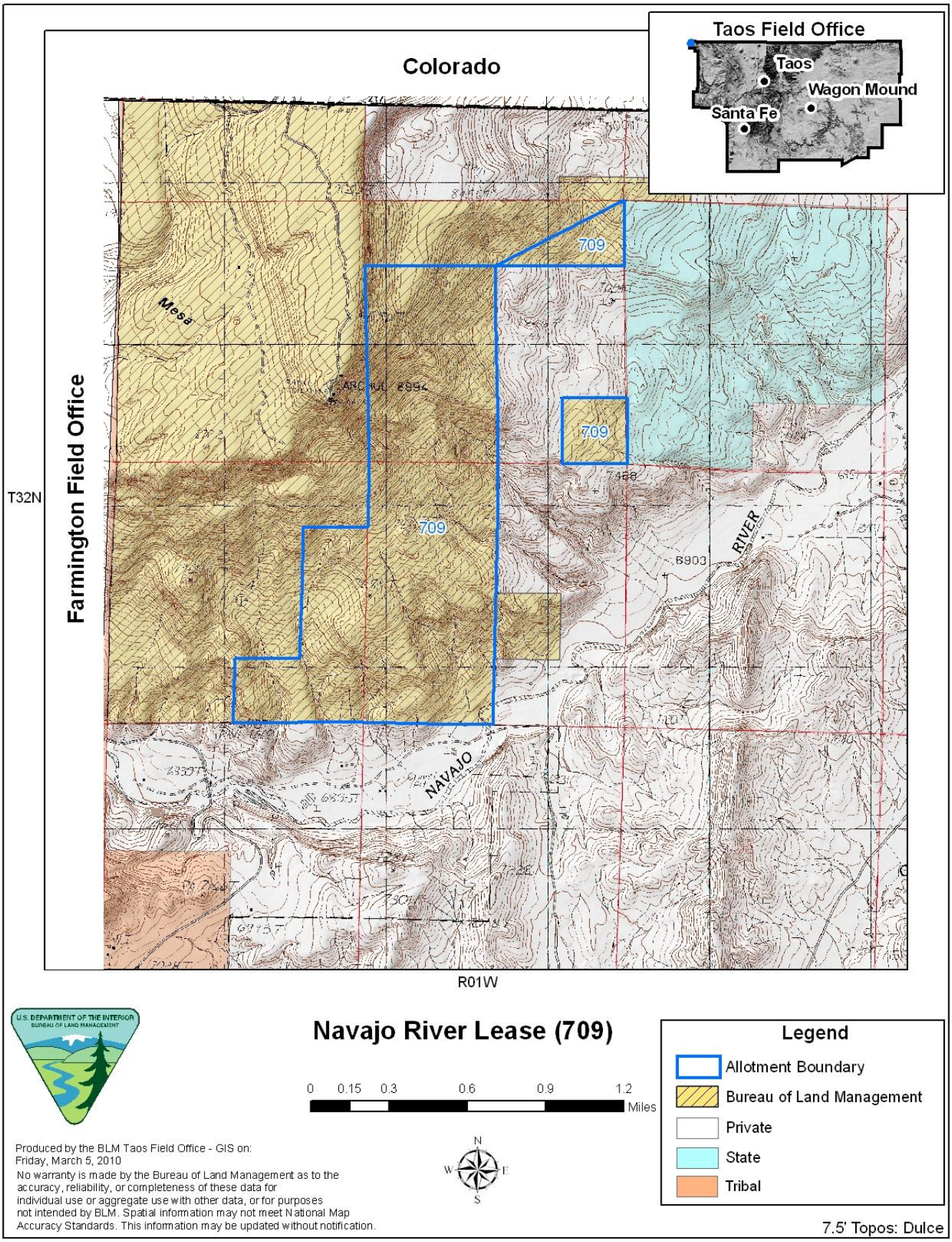
Allotment Evaluation (AE)
For
Navajo River Lease (#709)

Permittee		Authorization Number 3017547		
Livestock Use	Preference AUMs	Allotment 00709	Active 70	Suspended 0
	Period of Use	Allotment Navajo River Lease	Kind 40 Cattle	Season of Use 06/01 – 10/31
	Kind of Livestock	Cow Calf		
	Percent Public Land	AUMs are authorized at 35% public land		
Allotment Profile	Physical Description	Allotment 709 is located approximately 3 miles northwest of Lumberton in Rio Arriba County, New Mexico. Elevation on this allotment is roughly between 6,900 and 9,000 feet. Landforms on the allotment include; valley bottoms, drainages, escarpments and sideslopes. Four soil types are identified within the BLM lands in this allotment; Capillo-Carjo-Vamer complex, 3 to 25 percent slopes. These soils consist of loams, with rooting depths greater than 60 inches. Parent material of alluvium and colluvium derived from sandstone and shale comprises these soils. Average annual precipitation in this complex ranges from 16 to 20 inches. Hazards for erosion are slight to severe. Vegetation is characterized by western wheatgrass, pine dropseed, Arizona fescue, ponderosa pine, sideoats grama, Gambel oak and mountain brome. Rock outcrop-Bracos complex, 40 to 80 percent slopes. These soils consist of stony loams, with rooting depths between 20 and 30 inches. Parent material of alluvium and colluvium derived from metamorphic rock comprises these soils. Average annual precipitation in this complex ranges from 28 to 30 inches. Hazards for erosion are slight to severe. Vegetation is characterized by Engelmann spruce, Douglas fir, Arizona fescue, mountain brome, snowberry and violet. Suposo-Brycan complex, 1 to 6 percent slopes. These soils consist of loams, with rooting depths greater than 60 inches. Parent material of alluvium derived from sandstone and shale comprises these soils. Average annual precipitation in this complex ranges from 16 to 18 inches. Hazards for erosion are slight to moderate. Vegetation is characterized by western wheatgrass, prairie junegrass, spike muhly, bottlebrush		

		squirreltail, alkali sacaton and muttongrass. Yata-Eody loams, 50 to 80 percent slopes. These soils consist of loams, with rooting depths greater than 60 inches. Parent material of alluvium and colluvium derived from sedimentary and metamorphic rock comprises these soils. Average annual precipitation in this complex ranges from 25 to 27 inches. Hazards for erosion are slight to severe. Vegetation is characterized by Douglas fir, white fire, Arizona fescue, Gambel oak, fendler meadow rue and wild strawberry.
	Land Status Acreage	BLM: 800 State: 0 Private: 0
	Management Objectives	The allotment is under a 'Maintain' ('M') management category. 'M' category allotments are managed to maintain current satisfactory ecological condition.
	Key Forage Species	western wheatgrass, Arizona fescue, mountain brome, prairie junegrass
	Grazing System	Summer / fall grazing; rotation with private lands
Management Evaluation	Actual Use	**AUMs / Year** 70 2009 70 2008 70 2007 70 2006 non-use 2005 non-use 2004 non-use 2003 non-use 2002 non-use 2001 non-use 2000
	Utilization	Due to the lack of staff utilization studies have not been conducted. During the assessment visit it was determined that the allotment was receiving slight to moderate amounts of utilization.
	Climate	The past water year (Oct. 1, 2008 – Sept. 30, 2009) the average temperature has been slightly above average (0 to 1 degrees Fahrenheit above average) and precipitation near average (0 to 2 inches above average). The winter was slightly wetter (0 to.75 inches above normal) and was warmer (2 to 3 degrees Fahrenheit above average). The spring was drier (1.5 to 2 inches below normal) and was warmer (2 to 4 degrees Fahrenheit above average). This should provide below average plant growth for cool season plants. The summer was near average (0 to 1.5 below normal) and slightly warmer (0 to 1 above normal) which should provide near normal growth for warm season plants. Climate change is a concern not only in New Mexico but globally. "Effects of increasing atmospheric CO_2 levels on plants are predicted to cause dramatic changes in native vegetation. Global climate change may accelerate rates of plant extinction,

		while ecosystem structure and function may shift. Ecological response to global changes in climate could shift ecosystems (i.e., shrublands replacing grasslands) and have effects, not only to an individual species, but to the ecosystem itself by additions and deletions of vegetation species" (Johnson, H.B., and H.S. Mayeux. 1992. Viewpoint: A view on species additions and deletions and the balance of nature. Journal of Wildlife Management 45:322-333.) We anticipate that our monitoring efforts will help indicate vegetation shifts, allowing for management modifications to address global climate change.
	Trend	No long term trend plots have been established on this allotment. A Rangeland Health Matrix was completed on June, 12 2009. The actual survey forms are available within the allotment file. Below is a summation of the information gathered by the survey. Within the Rangeland Health Attributes are three different categories of indicators. The categories include; Soil and Site Stability, Hydrologic Function and Biotic Integrity. The percent of indicator score was created by multiplying an assigned value for departure from site descriptions/reference areas by the number of indicators at the level. Departure scores are categorized as: none to slight = 5, slight to moderate = 4, moderate = 3, moderate to extreme = 2 and extreme = 1. For example, if all indicators under Soil/Site Stability were rated none to slight (best condition), the equation would be 5(score)*10indicators=50/50*100 = 100% similarity, or what is expected based on an Ecological Site Description. Standards for each individual category are met when they are rated Proper Functioning Condition or Functioning at Risk-Upward Trend. Not meeting standards are ratings of; Functioning at Risk-Static, Functioning at Risk-Downward Trend and Non Functional. Soil and Site Stability Two indicators were deemed None to Slight and eight were deemed Slight to Moderate. Rating: 84% Hydrologic Function One indicator was deemed None to Slight and nine were deemed Slight to Moderate. Rating: 82% Biotic Integrity Five indicators were deemed None to Slight and four were deemed Slight to Moderate. Rating: 91%

		Overall Rating: 86% Soils were rated at Proper Functioning Condition, Flora was rated at Proper Functioning Condition, and Biotic Fauna was rated at Proper Functioning Condition. Riparian was rated at Proper Functioning Condition. Current livestock use does not appear to being having an adverse affect on rangeland health.
	Riparian	There is approximately .25 acres of riparian vegetation found on this allotment. It is located along the Navajo River at the southern extreme of the allotment. Vegetation consists of willows and other hydrophilic vegetation.
	Wildlife	Seasonal home ranges in the allotment include those for elk, deer, bear, cougar, bobcat, fox, coyote, small mammals, bats, raptors, turkey vulture, songbirds, and a variety of insects. Elk and deer are grazers; however there is little dietary overlap between deer and cattle. Best management practices would ensure that forage production within this area can support both wildlife and livestock on a sustained basis. Critical wildlife areas on the allotment include winter range for elk. An important migratory corridor for avian and big-game species also occurs inside the allotment boundaries.
	Threatened and Endangered Species	It is determined that there are no federally listed threatened or endangered species likely to be found in the subject allotment. There is no designated critical habitat for any species listed by the USFWS within the allotment. Mexican spotted owl?? Special status species that are likely to be found on the allotment include bald eagle and ferruginous hawk.
Conclusions and Recommendations		Overall, the allotment is in great condition with great diversity. Monitoring will help establish true trend data and any possible changes in the future. It is recommended that grazing be renewed for another 10 years without any changes to the permit.



U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Navajo River Lease (709)

0 0.15 0.3 0.6 0.9 1.2 Miles

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Legend

- Allotment Boundary
- Bureau of Land Management
- Private
- State
- Tribal

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7.5' Topos: Dulce